

DRILL HOLES

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BORDER REV. DATE: JUNE 1, 2004

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing Traffic Control Signal at the intersection of MD 28 (W Montgomery Ave) and Laird St / Bullard Circle in Montgomery County. The existing base mounted controller shall be replaced by a new base mounted controller. The signal poles in both the southeast and the southwest quadrant shall be relocated. The new / relocated signal equipment is due to geometric improvements on Bullard Circle. Existing Montgomery County 50 pair interconnect runs through this intersection and will be pulled back and rerouted to the existing splice cabinet. This cable does not interconnect with this intersection. MD 28 (W Montgomery Ave) is assumed to run an east-west direction.

II. INTERSECTION OPERATION

- The intersection shall continue to operate in a NEMA four-phase, semi-actuated mode, with the MD 28 (W Montgomery Ave) approaches running concurrently. The existing pedestrian phases with countdown pedestrian signals on actuation across both legs of MD 28 (W Montgomery Ave) shall remain in operation. The Laird St / Bullard Circle approaches shall also continue to run concurrently.
- A full-traffic-actuated, eight-phase controller with one (1) four channel, rack mount loop detector amplifier, and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
- All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7650 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

The contact persons for District #3 (Montgomery County) are as follows:

Mr. Jeff Wentz  
Assistant District Engineer - Traffic  
Phone: (301) 513-7318

Mr. Wayne Mowdy  
Assistant District Engineer - Maintenance  
Phone: (301) 513-7304

Mr. Augie Reblish  
District Engineer - Utility  
Phone: (301) 513-7350

Mr. Thomas Smith  
City of Rockville  
Phone: (240) 314-8511

Mr. Richard L. Daff, Sr.  
Chief, Traffic Operations Division  
Phone: (410) 787-7630

Mr. Ed Rodenhizer  
Signal Shop  
410-787-7652

Mr. Sonny Bailey  
Sign Shop  
410-787-7670

The power company representative is:

Mr. Steve Custer  
PEPCO Customer Design  
201 W Guide Dr.,  
Rockville, MD 20850  
Phone: 301 548-4333

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

THERE IS NO EQUIPMENT TO BE SUPPLIED BY THE SHA

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

SPEC. NUMBER	DESCRIPTION	QUANTITY
	Eight-phase, full-traffic actuated, solid state digital controller with 4-channel, rack mount loop detector amplifier, detector rack and intersection monitor with battery back-up housed in a NEMA size "6" mounted cabinet	1 EA
205	Test pit excavation.	3 C.Y.
801	Furnish and install concrete for signal foundation.	8.4 C.Y.
813	Overhead mounted sheet aluminum sign consisting of: D3-2 "Bullard Circle (arrow) / (arrow) Bullard Circle" sign, (variable x 16") (dual faced), mast arm mount.	1 EA
556	5" white permanent preformed thermoplastic pavement marking.	50 L.F.
556	5" yellow permanent preformed thermoplastic pavement marking.	100 L.F.
556	12" white heat applied permanent preformed thermoplastic pavement marking	115 L.F.
	24" white heat applied permanent preformed thermoplastic pavement marking	90 L.F.

EQUIPMENT LIST (cont.)

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

SPEC. NUMBER	DESCRIPTION	QUANTITY
815	Saw cut for signal (loop detector).	225 L.F.
805	Furnish and install 2" schedule 80 rigid polyvinyl chloride - trench	30 L.F.
805	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - trench	180 L.F.
805	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - trench	75 L.F.
805	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - bored.	70 L.F.
811	Furnish and install electrical handhole.	2 EA
805	1" liquid tight flexible non-metallic conduit for detector sleeve.	12 L.F.
810	Furnish and install loop wire encased in flexible tubing (No. 14 AWG).	950 L.F.
810	Furnish and install electrical cable - 2 conductor (aluminum shielded).	330 L.F.
810	Electrical cable 1-conductor No. 4 AWG THHN/THWN.	30 L.F.
810	Furnish and install 2-conductor electrical cable (No. 14 A.W.G.).	485 L.F.
810	Furnish and install 5-conductor electrical cable (No. 14 A.W.G.).	600 L.F.
810	Furnish and install 7-conductor electrical cable (No. 14 A.W.G.).	675 L.F.
810	Furnish and install ground rod 3/4" x 10'.	6 EA
810	Furnish and install No. 6 AWG stranded bare copper ground wire.	435 L.F.
	Relocate existing steel pole with mast arm and traffic signal heads.	2 EA
	Relocate existing ground mounted sign.	1 EA
	Remove and dispose of existing foundation 12" below grade.	2 EA
	Remove and dispose of existing signal equipment and material.	1ump sum
	Detectable warning system (truncated domes). Std. MD 655.40	44 SF
	Meter Pedestal	1 EA
	Furnish and install 5' breakaway pedestal pole with transformer base.	2 EA
	Furnish and install 1 conductor cable (No. 250 KCMIL).	120 L.F.
	Remove existing ground mounted sign	1 EA

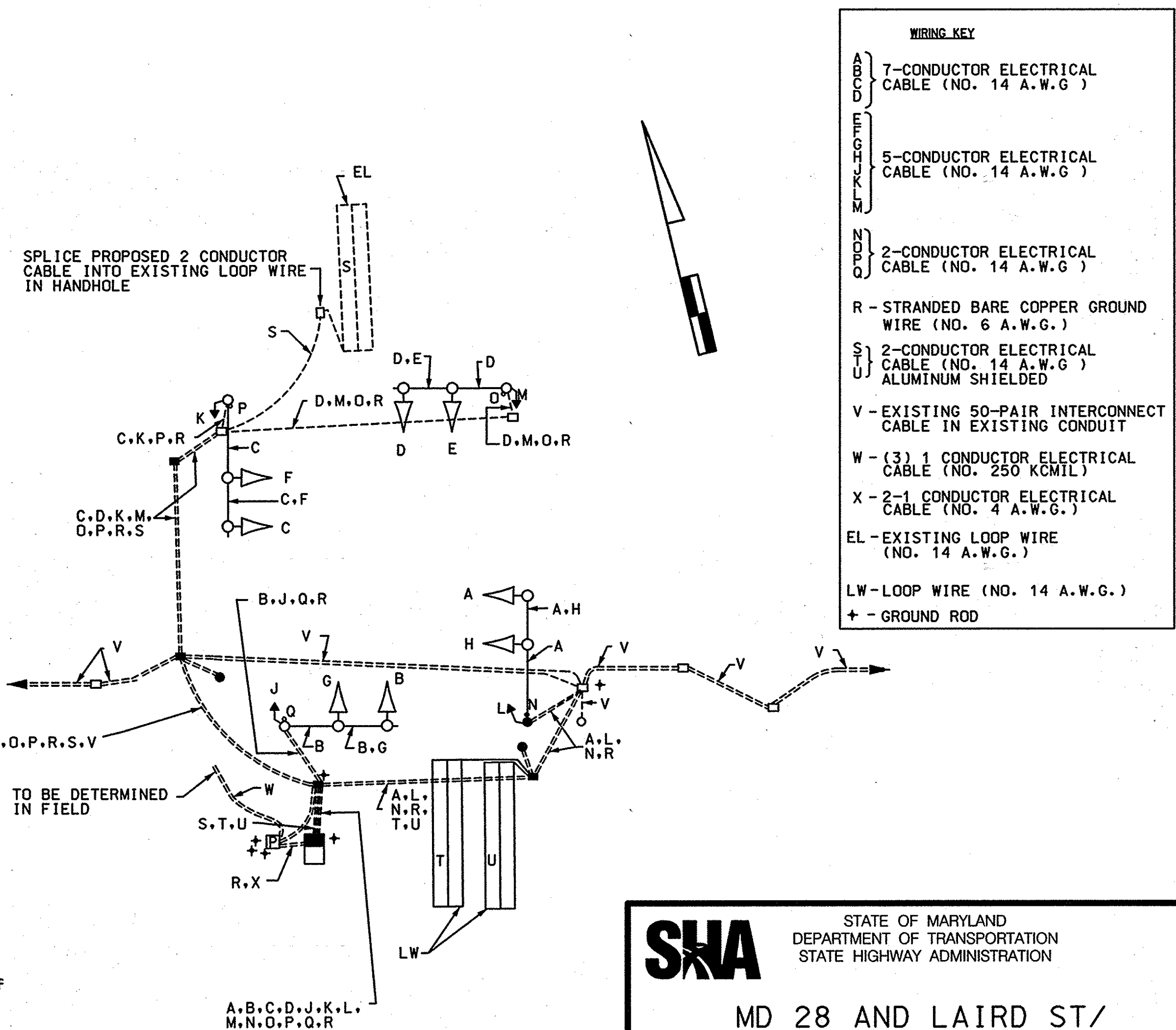
C. EQUIPMENT TO BE REMOVED

The existing cabinet and controller shall be returned to the City of Rockville Signal Shop (240) 314-8511. All other removed materials shall become property of the Contractor.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)				
PHASE 2 & 6	G	G	G	G	R	R	R	R	DW	DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW
PHASE 4 & 8	R	R	R	R	G	G	G	G	DW	DW	DW	DW
4 & 8 CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 & 8 ALT	R	R	R	R	G	G	G	G	WK	WK	WK	WK
PED CLEAR / COUNTDOWN	R	R	R	R	G	G	G	G	FL/DW	FL/DW	FL/DW	FL/DW
4 & 8 ALT CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

WIRING DIAGRAM



SHA

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION

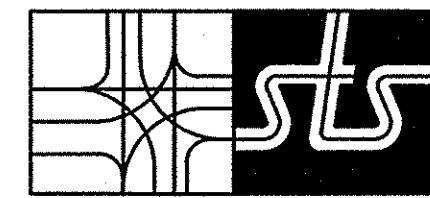
MD 28 AND LAIRD ST/  
BULLARD CIRCLE

GENERAL INFORMATION SHEET

SCALE NONE DATE 10/27/07 CONTRACT NO. BW966M82

DESIGNED BY R ZACHERL COUNTY MONTGOMERY  
DRAWN BY ROB CICCHINI LOGMILE 15002821.47  
CHECKED BY TIMS NO. 1204  
F.A.P. NO. TOD NO.

TS NO. 1334A DRAWING NO. 2 OF 2 SHEET NO. OF



STREET TRAFFIC STUDIES, LTD.  
400 Crain Hwy., N.W.  
Glen Burnie, MD 21061

Ph (410) 590-5500  
Fax (410) 590-6637

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